REMARKS

Applicants thank the Examiner for the thorough consideration given the claims pending in the present Application. Claims 1 – 10 are pending in the present Application. Claims 1 – 5 are amended by this response. Claims 6 – 10 are added. Claims 1 and 6 are independent claims.

Scope of Amendments

Applicants respectfully submit that the amendments made to independent claim 1 are, with the exception of those required to overcome the section 112 rejection, purely stylistic and made for the sake of clarity. No changes in the substance or scope of the claim are made or intended hereby.

Specification Objections

The specification is objected to as having a non-descriptive title and an abstract in excess of 150 words. Applicants hereby submit amendments to both the title and the abstract to correct the above-stated issues. The title now no longer uses the words "or like" and the abstract is now less than 150 words. Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

Claim Objections

Claims 4 and 5 are objected to as being in improper multiple dependent format. Applicants hereby amend claim 4 into single dependent format. Accordingly, reconsideration and withdrawal of this objection is respectfully requested.

Allowable Subject Matter

Applicants' representative spoke with the Examiner on June 9, 2009 and confirmed at that time that claims 2 and 3 are regarded, subject to overcoming the section 112 rejections, as otherwise allowable subject matter dependent from a rejected base claim. Applicants thank the Examiner for noting that claims 2 and 3 are allowable but wish to pursue the allowability of all claims at this time.

Claim Rejections under section 112

Claims 1 – 3 stand rejected under 35 U.S.C. § 112, second paragraph, on the theory that the claims are indefinite. Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

Claim 1 is rejected as having insufficient antecedent basis for the term "the pieces of detected image data." Applicants hereby amend claim 1 to remove the word "the."

Claims 1 – 3 are rejected as being indefinite for use of the term "or like," which is alleged as rendering the claim scope unascertainable. Applicants hereby amend claims 1 – 3 to remove the term "or like."

At least in view of the above, Applicants respectfully submit that claims 1 – 3 now satisfy the requirements of 35 U.S.C. §112, second paragraph. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Claim Rejections under section 102(b)

Claim 1 stands rejected under 35 U.S.C. §102(b) as being anticipated by Japanese Patent Publication 10-038997 ("'997"). Insofar as it pertains to the presently pending claims, this rejection is respectfully traversed.

Prior Art

'997 teaches a radar image processing unit and associated technique for enlarging an echo signal (image) in an azimuth direction in a polar coordinate system. Specifically, as shown in Fig. 3 of '997, a sweep-based solution is presented whereby multiple series of sweep lines must be saved and compared to effect target enlargement. When dealing with multiple or nearby targets, the amount of memory and filtering required to effect such a solution becomes unmanageably large as multiple series of sweeps must be stored and compared for each target.

Claim 1

Independent claim 1 pertains to a radar apparatus that includes, in pertinent part, "an azimuth direction detected image data corrector that compares generated pixels of detected image data of a current sweep with shifted detected image data of a previous sweep at the same position in a sweep distance direction, and outputs a maximum value of pieces of detected image data as detected image data of the current sweep."

Applicants respectfully submit that whereas '997 is a sweep-based solution, claim 1 presents a pixel-based solution that requires considerably less memory and fewer sweeps to effect enlargement. Unlike '997 which requires multiple series of sweeps for a target object, claim 1 compares generated pixels of detected image data generated from a current and shifted pixels of detected image data from a prior sweep and outputs the maximum pixel value for a pixel between the current and prior sweeps as the detected image data (pixels) of the current sweep. Claim 1 therefore effects enlargement of a target within two sweeps and operates on pixel-based data generated from each sweep instead of requiring the results of multiple sweep series to effect a target enlargement.

By contrast, '997 requires that the full spectrum of echo data for each sweep line be stored and performs processing based on comparisons of at least the full spectrum of a current sweep, its preceding sweep, and its subsequent sweep. '997 therefore compares sets of detected data (echo signals) and expands or enlarges a portion of the detected data before converting that data into detected image data (pixels). Such a solution requires considerably more memory and much larger sets of echo data (and therefore considerably more attendant signal processing) as it operates directly on multiple full spectrums of echo data instead of converting the data to pixels and comparing individual subsequently generated pixels.

Summary

Claim 1, unlike '997, converts each set of detected data (echo signals) into detected image data (pixels) and then performs azimuth enlargement on the pixel data of generated from a particular sweep based on shifted pixel data from one prior sweep. Applicants therefore

respectfully submit that '997 fails to teach or suggest "an azimuth direction detected image data corrector that compares generated pixels of detected image data of a current sweep with shifted detected image data of a previous sweep at the same position in a sweep distance direction, and outputs a maximum value of pieces of detected image data as detected image data of the current sweep" as required by independent claim 1. Accordingly, reconsideration and withdrawal of this rejection is respectfully requested.

Conclusion

Entry of the above amendments is earnestly solicited. An early and favorable first action on the merits is earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Michael K. Mutter (Reg. No. 29,680) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37.C.F.R. §§1.16 or 1.14; particularly, extension of time fees.

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Respectfully submitted,

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